

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. **(Currently amended)** A method for treating a disorder in which TNF α activity is detrimental comprising administering to a subject an effective amount of ~~a TNF α inhibitor~~ an anti-TNF α antibody, or an antigen-binding portion thereof, in a low dose ~~therapy~~ of 0.01 – 0.1 mg/kg, such that the disorder is treated.
2. **(Original)** The method of claim 1, wherein the disorder is arthritis.
3. **(Original)** The method of claim 2, wherein the disorder is rheumatoid arthritis.
4. **(Currently amended)** The method of any one of claims 2 and or 3, wherein symptoms selected from the group consisting of bone erosion, cartilage erosion, inflammation, and vascularity, are treated.
- 5-7. **(Canceled)**
8. **(Currently amended)** A low dose method to alleviate symptoms associated with a disorder in which TNF α activity is detrimental, comprising administering a low dose of 0.01 – 0.1 mg/kg of a TNF α inhibitor an anti-TNF α antibody, or an antigen-binding portion thereof, to a subject suffering from said disorder, such that the symptoms are treated.
9. **(Original)** The method of claim 8, wherein the disorder is arthritis.
10. **(Original)** The method of claim 9, wherein the disorder is rheumatoid arthritis.
11. **(Currently amended)** The method of any one of claims 9 and or 10, wherein symptoms are selected from the group consisting of bone erosion, cartilage erosion, inflammation, and vascularity.
- 12-14. **(Canceled)**

15. **(Currently amended)** A method for treating arthritis comprising administering to a subject an effective amount of ~~a TNF α inhibitor~~ an anti-TNF α antibody, or an antigen-binding portion thereof, in a low dose ~~therapy~~ of 0.01 – 0.1 mg/kg, such that the arthritis is treated.

16. **(Original)** The method of claim 15, wherein the arthritis is rheumatoid arthritis.

17. **(Currently amended)** The method of ~~either~~ any one of claims ~~claim~~ 15 or 16, wherein arthritis is treated by alleviating symptoms selected from the group consisting of bone erosion, cartilage erosion, inflammation, and vascularity.

18-20. **(Canceled)**

21. **(Currently amended)** A low dose method for treating symptoms associated with arthritis comprising administering to a subject ~~a low dose of~~ an effective amount of ~~a TNF α inhibitor~~ an anti-TNF α antibody, or an antigen-binding portion thereof, in a low dose of 0.01 – 0.1 mg/kg, such that the symptoms are alleviated.

22. **(Previously presented)** The method of claim 21, wherein the arthritis is rheumatoid arthritis.

23. **(Currently amended)** The method of any one of claims 21 ~~and~~ or 22, wherein the symptoms are selected from the group consisting of bone erosion, cartilage erosion, inflammation, and vascularity.

24. **(Original)** The method of claim 23, wherein the symptoms are further selected from the group consisting of joint distortion, swelling, joint deformation, ankylosis on flexion, and severely impaired movement.

25-27. **(Canceled)**

28. **(Currently Amended)** A method of sequestering TNF α into complexes in a subject suffering from a disorder in which TNF α activity is detrimental, by administering a low dose of 0.01 – 0.1 mg/kg of ~~a TNF α inhibitor~~ an anti-TNF α antibody, or an antigen-binding portion thereof, to the subject.

29. **(Original)** The method of claim 28, wherein the serum level of TNF α is higher than the serum level of TNF α in a subject not suffering from a disorder in which TNF α activity is detrimental.

30. **(Canceled)**

31. **(Currently amended)** The method of any one of claims 1, 8, or 15, wherein the ~~TNF α inhibitor~~ anti-TNF α antibody, or an antigen-binding portion thereof, is administered with an additional therapeutic agent.

32. **(Currently amended)** The method of ~~claim 5~~ any one of claims 1-3, wherein the anti-TNF α antibody, or an antigen-binding portion thereof, is either infliximab or D2E7.

33. **(Currently amended)** The method of ~~claim 12~~ any one of claims 8-10, wherein the anti-TNF α antibody, or an antigen-binding portion thereof, is either infliximab or D2E7.

34. **(Currently amended)** The method of ~~claim 18~~ any one of claims 15 or 16, wherein the anti-TNF α antibody, or an antigen-binding portion thereof, is either infliximab or D2E7.

35. **(Currently amended)** The method of ~~claim 25~~ any one of claims 21 or 22, wherein the anti-TNF α antibody, or an antigen-binding portion thereof, is either infliximab or D2E7.

36. **(Currently amended)** The method of claim ~~30-28~~, wherein the anti-TNF α antibody, or an antigen-binding portion thereof, is either infliximab or D2E7.

37-39. **(Canceled)**

40. **(Currently amended)** The method of ~~claim 5~~ any one of claims 1-3, 8-10, 15, 16, 21 or 22, wherein the anti-TNF α antibody, or an antigen-binding portion thereof, is human.

41. **(Previously presented)** The method of claim 40, wherein the anti-TNF α antibody, or antigen-binding portion thereof, dissociates from human TNF α with a K_d of 1×10^{-8} M or less and a K_{off} rate constant of $1 \times 10^{-3} \text{ s}^{-1}$ or less, both determined by surface plasmon

resonance, and neutralizes human TNF α cytotoxicity in a standard *in vitro* L929 assay with an IC₅₀ of 1×10^{-7} M or less.

42. **(Currently amended)** A low dose method for treating rheumatoid arthritis in which TNF α activity is detrimental comprising administering to a subject a low dose of 0.01 – 0.1 mg/kg of a human TNF α antibody, or an antigen-binding portion thereof, such that the disorder is treated.

43. **(Previously presented)** The method of claim 36, wherein symptoms selected from the group consisting of bone erosion, cartilage erosion, inflammation, and vascularity, are treated.

44. **(Previously presented)** The method of claim 36, wherein the anti-TNF α antibody, or antigen-binding portion thereof, dissociates from human TNF α with a K_d of 1×10^{-8} M or less and a K_{off} rate constant of 1×10^{-3} s⁻¹ or less, both determined by surface plasmon resonance, and neutralizes human TNF α cytotoxicity in a standard *in vitro* L929 assay with an IC₅₀ of 1×10^{-7} M or less.

45. **(Previously presented)** The method of claim 36, wherein the anti-TNF α antibody, or antigen-binding portion thereof, is D2E7.

46-47. **(Canceled)**

48. **(Currently amended)** A low dose method of improving symptoms in the joints of a subject having arthritis comprising administering to the subject a low dose of 0.01-0.1 mg/kg of a human anti-TNF α antibody, or antigen-binding portion thereof, ~~comprising 0.01-0.1 mg/kg~~ such that at least one symptom selected from the group consisting of inflammation, cartilage erosion, bone erosion, and vascularity is improved.

49. **(Previously presented)** The method of claim 44, wherein the anti-TNF α antibody, or antigen-binding portion thereof, is D2E7.